

VOLUME CONTENTS

Volume 26 Number 1 February 1995

1 Pig microsatellites isolated from cosmids revealing polymorphism and localized on chromosomes
A Robic, J-L Parrou, M Yerle, A Goureau, M Dalens, D Milan, J Gellin

7 Microsatellite-based parentage control in cattle
M-L Glowatzki-Mullis, C Gaillard, G Wigger, R Fries

13 Genetic markers for Atlantic salmon (*Salmo salar* L.): single locus inheritance and joint segregation analyses of minisatellite (VNTR) DNA loci
JB Taggart, P A Prodöhl, A Ferguson

21 A genetic and physical map of bovine chromosome 3
D Vaiman, A Eggen, D Mercier, I Bahri-Darwich, C Grohs, D Bruneau, P Laurent, B Chaput, A Oustry, G Frelat, H Levéziel, E P Cribiu

27 Features of the DNA fingerprinting probe pITZ1
K J Huebscher, G Dolf, J Frey, G Stranzer, C Gaillard

31 Enzyme polymorphism in the freshwater mussel species, *Aspatharia pfeifferiana* (Mollusca, Lamellibranchiata) from southern Africa
F H van der Bank, M van der Bank

Short Communications

37 Four new alleles at the mannose-6-phosphate isomerase locus in rabbit
J Vieira, N Ferrand

39 Mapping of the genes for rat endothelin receptor type A (ET_AR) and type B (ET_BR) to chromosomes 19 and 15 respectively
Y Cai, T Yamada, X Xin, T Agui, K Matsumoto

43 Mutations in the sequence flanking the microsatellite at the KAP8 locus prevent the amplification of some alleles
A J Ede, A M Crawford

45 Restriction fragment length polymorphism in amplification products of the bovine PIT1 gene and assignment of PIT1 to bovine chromosome 1
D E Moody, D Pomp, W Barendse

49 The lactase phlorizin hydrolase (LCT) gene maps to pig chromosome 15q13
P D Thomsen, M Johansson, J T Troelsen, L Andersson

53 Unusual D system inheritance in Anglo-Arab horse
H Kakoi, H Gawahara, N Miura

Molecular Genetic Markers

55 A polymorphic porcine dinucleotide repeat S0300 (BHA 254) at chromosome 6
B Høyheim, A Keiserud, W Davies, B Chaput, A Schmitz, G Frelat

55 A highly polymorphic porcine dinucleotide repeat S0299 (BHA 248) at chromosome 6
B Høyheim, A Keiserud, W Davies, B Chaput, A Schmitz, G Frelat

Six bovine dinucleotide repeat polymorphisms: RM041, RM051, RM066, RM088, RM103 and RM113
L M Kossarek, W M Grosse, O Finlay, X Su, R A McGraw

56 A polymorphic porcine dinucleotide repeat S0298 (BHT 287) at chromosome 16q14
B Høyheim, A Keiserud, P D Thomsen

57 A highly polymorphic porcine dinucleotide repeat S0295 (BHT 40) at chromosome 9q21-q23
B Høyheim, A Keiserud, P D Thomsen

Five bovine dinucleotide repeat polymorphisms: RM040, RM044, RM096, RM153 and RM179
L M Kossarek, O Finlay, W M Grosse, X Su, S M Armitage, W Barendse, R A McGraw

58 A highly polymorphic porcine dinucleotide repeat S0296 (BHT 137) at chromosome 17q13
B Høyheim, A Keiserud, P D Thomsen

59 A microsatellite polymorphism at the ovine pituitary adenylate cyclase activating polypeptide gene in sheep which can be coamplified with two other loci
D R Bancroft

Polymorphic bovine microsatellites UWCA25, UWCA26 and UWCA28
B W Kirkpatrick, M Bradshaw, M R Dentine, W Barendse

61 Book review

62 Instructions to authors

Volume 26 Number 2 April 1995

67 Genotyping bovine milk proteins using allele discrimination by primer length and automated DNA sizing technology
M Lindersson, A Lundén, A Anderson

73 Functional genes mapped on the chicken genome
R P M A Crooijmans, J J van der Poel, M A M Groenen

79 Analysis of the fine specificities of sheep major histocompatibility complex class II-specific monoclonal antibodies using mouse L-cell transfectants
K T Ballingall, B M Dutia, J Hopkins, H Wright

85 Six loci mapped on to human chromosome 2p are assigned to sheep chromosome 3p
T E Broad, D J Burkin, L M Cambridge, C Jones, P E Lewis, H G Morse, D Geyer, P D Pearce, H A Ansari, D W Maher

91 Polymerase chain reaction based genotyping for characterization of SLA-DQB and SLA-DRB alleles in domestic pigs
Y-C Shia, M Bradshaw, M S Rutherford, H A Lewin, L B Schook

Short Communications

101 DNA sequence of the porcine α -lactalbumin 5' flanking region and single-base polymorphisms within this region
G T Bleck, D L Johnson-Roberts, R Jiménez-Flores, M B Wheeler

105 Genetic polymorphism of the sixth component of complement (C6) in dogs
T Shibata, T Abe, Y Tanabe

107 Turkey microsatellite DNA loci amplified by chicken-specific primers
I Levin, H H Cheng, C Baxter-Jones, J Hillel

111 Discrimination between major histocompatibility complex class II DQ and DR locus products in cattle
B M Dutia, L MacCarthy-Morrough, E J Glass, G Knowles, R L Spooner, J Hopkins

115 Development and mapping of ten porcine microsatellite markers
M A M Groenen, D Ruyter, E J M Verstege, M de Vries, J J van der Poel

119 Alignment of two genetic linkage maps on porcine chromosome 13
W Davies, B Høyheim, S Skogtvedt

Molecular Genetic Markers

123 Dinucleotide repeat polymorphism at the bovine HAUT1 and HAUT14 loci
U Thieven, B Harlizius, D Simon

Equine parentage testing by microsatellite locus at chromosome 1q2.1
M Sakagami, T Tozaki, S Mashima, K Hirota, H Mukoyama

124 Three bovine chromosome 15 microsatellite markers
J L Williams, B G Urquhart, B Barendse

Five polymorphic ovine microsatellites
A J Smith, D J Hulme, K J Beh

125 A Taq1 RFLP at the bovine INHI locus
S Hiendleder, C Weimann, R Grandke

Three porcine polymorphic microsatellite loci (S0075, S0151, S0158)
A K Wintere, M Fredholm

126 Five bovine microsatellite markers derived from skeletal muscle cDNA: *RME01*, *RME11*, *RME23*, *RME25* and *RME33*
WM Grosse, O Finlay, L M Kossarek, T G Clark, R A McGraw

127 Nucleotide substitution in the bovine *FSHB* 5'-region
P Schlee, J Blusch, T Werner, E Schallenger, R Graml, F Pirchner

128 Bovine microsatellite mononucleotide and dinucleotide repeat polymorphisms at the *TEXAN6*, *TEXAN7*, *TEXAN8*, *TEXAN9* and *TEXAN10* loci
B M Burns, J F Taylor, K L Herring, A D Herring, M T Holder, J S Collins, T M Guerra, J O Sanders, S K Davies

129 Ovine microsatellites at the *OarCP9*, *OarCP16*, *OarCP20*, *OarCP21*, *OarCP23* and *OarCP26* loci
A J Ede, C A Pierson, A M Crawford

130 Ovine microsatellites at the *OarCP34*, *OarCP38*, *OarCP43*, *OarCP49*, *OarCP73*, *OarCP79* and *OarCP99* loci
A J Ede, C A Pierson, A M Crawford

131 RFLP markers for the porcine *INHA* locus
S Hiendleder, U Jannaber, C Weimann, R Grandke

132 Two polymorphic bovine microsatellite loci (AFR227 and AFR2215)
C B Jørgensen, B A Konfortov, W Barendse, J R Miller
 Eighteen canine microsatellites
C S Mellersh, J Sampson

134 RFLPs at the porcine locus encoding the type I-alpha regulatory subunit of the cAMP-dependent protein kinase (PRKAR1A)
S Couperwhite, B A Hemmings, A L Archibald
 A *HindIII* RFLP at the porcine inter- α -trypsin inhibitor locus (ITIH)
S Couperwhite, T G Buchman, A L Archibald

Volume 26 Number 3 June 1995

135 Relations between genetic distance of parental pig breeds and heterozygosity of their *F₁* crosses measured by genetic markers
S Čepica, J Wolf, J Hojný, I Vacková, J Schröffel Jr

141 Organization of the sex-linked late-feathering haplotype in chickens
F Iraqui, E J Smith

147 Sequence and PCR-RFLP analysis of 14 novel BoLA-DRB3 alleles
A Gelhaus, L Schnittger, D Mehlitz, R D Horstmann, C G Meyer

155 Probability of random sire exclusion using microsatellite markers for parentage verification
A P Usha, S P Simpson, J L Williams

163 Genetic characterization of highly inbred chicken lines by two DNA methods: DNA fingerprinting and polymerase chain reaction using arbitrary primers
Y Plotsky, M G Kaiser, S J Lamont

171 Five regional localizations to the sheep genome: first assignments to chromosomes 5 and 12
P D Pearce, H A Ansari, D W Maher, T E Broad

Short Communications

177 Synteny-mapping horse microsatellite markers using a heterozygous panel
E Bailey, K T Graves, E G Cothran, R Reid, T L Lear, R B Ennis

181 Long-range mapping of the calcium release channel and glucosidase isomerase loci using pulsed-field gel electrophoresis
E Frengen, W Davies

185 Genetic analysis of three loci homologous to human G9a: evidence for linkage of a class III gene with the chicken MHC
C A Spike, S J Lamont

189 A rapid PCR-based test for the endogenous viral element *ev3* of chickens
B F Benkel, J Perreault, C Gagnon, K Conklin

193 Extensive mtDNA diversity in horses revealed by PCR-SSCP analysis
S Marklund, R Chaudhary, L Marklund, K Sandberg, L Andersson

197 Two new variants of the bovine PAS-1 glycoprotein
P Sacchi, E Macchi, R Rasero, P Fiandra

199 Comparative mapping of sheep inhibin subunit β _b to chromosome 2 in sheep and cattle by fluorescence *in situ* hybridization
T Goldammer, R M Brunner, S Hiendleder, M Schwerin

Molecular Genetic Markers

201 Bovine microsatellite dinucleotide repeat polymorphisms at the *TEXAN11*, *TEXAN12*, *TEXAN13*, *TEXAN14* and *TEXAN15* loci
B M Burns, J F Taylor, K L Herring, A D Herring, M T Holder, J S Collins, T M Guerra, J O Sanders, S K Davis

202 Dinucleotide repeat polymorphisms at the bovine *HUJ673*, *HUJ121*, *HUJ174*, *HUJ225*, *HUJ1113* and *HUJ1129* loci
A Shalom, M O Mosig, W Barendse, M Soller, A Friedmann

203 TXQG1: a polymorphic microsatellite on bovine chromosome 10
Q Gao, W Barendse, J E Womack

DNA polymorphisms in two transcription control elements (SP1- and TATA-box) of porcine *HSP70.2* gene detected by allele-specific PCR
M Schwerin, G von Lengerken, M Fredholm, K Christensen, S Krause

204 A Mspl polymorphism at the bovine α -lactalbumin gene
R Osta, E Garcia-Muro, I Zarazaga

205 *HincII* and *HaelII* RFLPs in the porcine mtDNA D-loop region
R Davoli, E Costosi, L Nanni Costa, J Tagliavina, V Russo

206 Four SINE-associated polymorphic bovine microsatellites (HEL23-HEL26)
J Vilki, J Sandholm, S Kostia, S-L Varvio

A PCR-RFLP marker for the erythroid aminolevulinate synthase gene (*ALAS2*) on canine chromosome X
G Boyer, D Nonneman, H Shibuya, S J Stoy, D O'Brien, G S Johnson

207 *BgII* and *HincII* detect polymorphisms at porcine *GPI* locus
V Russo, R Davoli, D Nicoli, P Zambonelli

208 Bovine microsatellite dinucleotide repeat polymorphisms at the *TEXAN16*, *TEXAN17*, *TEXAN18*, *TEXAN19* and *TEXAN20* loci
B M Burns, J F Taylor, K L Herring, A D Herring, M T Holder, D A Holder, J S Collins, J O Sanders, S K Davis

209 Polymorphic bovine microsatellites *INRAMTT178*, *INRAMTT180* and *INRAMTT183*
R Veltmala, D Vaiman, A Virta, D Mercier, H Leveziel

210 A *SstII* RFLP at the chicken transforming growth factor- β 2 locus (*TGF β 2*)
D R Morrice, D W Burt

211 Mapping the *CdxA* gene to a new linkage group in chicken
H Khatib, D Berkovitz, T Ratz, Y Plotzki, A Fainsod, Y Gruenbaum

A BgII polymorphism at the porcine transferrin (TF) locus
S Dall'Olio, R Davoli, E Costosi, P Zambonelli, V Russo

212 *A BgII* polymorphism at the porcine *INHBB* locus
C Weimann, C Jäger, R Grandke, S Hiendleder

213 A *MnlI* polymorphism at the bovine α_{s2} -casein gene
R Osta, S Marcos, C Rodellar

214 Erratum

Volume 26 Number 4 August 1995

215 An integrated cytogenetic and meiotic map of the bovine genome
A Eggen, R Fries

237 The porcine intestinal receptor for *Escherichia coli* K88ab, K88ac: regional localization on chromosome 13 and influence of IgG response to the K88 antigen
I Edfors-Lilja, U Gustafsson, Y Duval-Ifrah, H Ellergren, M Johansson, R K Juneja, L Marklund, L Andersson

243 A polymorphism in randomly amplified DNA that differentiates the Y chromosomes of *Bos indicus* and *Bos taurus*
A J Teale, J Wambugu, P S Gwakisa, G Stranziger, D Bradley, S J Kemp

249 Sheep linkage mapping: RFLP markers for comparative mapping studies
G W Montgomery, J M Penty, H M Henry, J A Sise, E A Lord, K G Dodds, D F Hill

261 Investigation of the role of opsin gene polymorphism in generalized progressive retinal atrophies in dogs
D J Gould, S M Petersen-Jones, A Sohal, K C Barnett, D R Sargent

Short Communications

269 Chromosomal assignment of seventeen porcine microsatellites and genes by use of a somatic cell hybrid mapping panel
G Rettenberger, J Bruch, C W Beattie, C Morgan, R Fries, H Hameister

275 Polymorphism of erythrocyte malic enzyme in the goat
L Di Stasio, R Rasero, P Fiandra, P Giaccone

Molecular Genetic Markers

277 Two porcine polymorphic microsatellite loci (*S0033* and *S0035*)
J F Brown, A L Archibald

Thirteen polymorphic ovine microsatellites
A J Smith, D J Hulme, J P Silk, J M Redwin, K J Beh

279 Three bovine dinucleotide repeat polymorphisms (*D5S46*, *D15S25*, *D26S19*)
D I Våge, I Olsaker, S Lien, E F Arnet, Ø Lie

A BamHI polymorphism at the ovine inactive X-specific transcript locus (*XIST*)
T van Stijn, S Galloway

280 A *MspI* polymorphism at the transferrin (*TF*) locus in cattle
C Elduque, C Rodellar, P Zaragoza

RFLPs at the baboon insulin-like growth factor 1 (*IGF1*) and the *IGF1* receptor (*IGF1R*) loci
L M Pereyngina, C M Kammerer, R D Henkel

281 Atlantic salmon, *Salmo salar*, microsatellites at the *SSOSL25*, *SSOSL85*, *SSOSL311*, *SSOSL417* loci
A Slettan, I Olsaker, Ø Lie

282 An equine microsatellite repeat at the *VIAS-H64* locus
K R Ewen, M E Mathews

Dinucleotide repeat polymorphism adjacent to sheep complement Factor B
D M Groth, J D Wetherall

283 *ECA-3*: equine (CA) repeat polymorphism at chromosome 2p1.3-4
T Tozaki, M Sakagami, S Mashima, K Hirota, H Mukoyama

A *BsmA1* polymorphism in the bovine lipoprotein lipase gene
S Lien, L Gomez-Raya, D I Våge

284 Two polymorphisms in the canine beta-A3/A1-crystallin gene, detectable by PCR-RFLP analysis
H Shibuya, D R Mrad, B K Collins, S J Stoy, D Nonneman, G S Johnson

285 A polymorphism in intron D of the chinook salmon growth hormone 2 gene
L K Park, P Moran, D A Dightman

287 Society News

Volume 26 Number 5 October 1995

293 Number and distribution of silver-stained nucleolar organizer regions and evolutionary relationships in domestic pigs
W S Liu, X Z Lu, H Qiu

299 A panel of polymorphic bovine, ovine and caprine microsatellite markers
S J Kemp, O Hishida, J Wambugu, A Rink, M L Longer, R Z Ma, Y Da, H A Lewin, W Barendse, A J Teale

307 Biochemical identification of the bovine blood group M⁺ antigen as a major histocompatibility complex class I-like molecule
L S Hønberg, B Larsen, C Koch, H Østergård, K Skjødt

315 Random amplified polymorphic DNA in cattle and sheep: application for detecting genetic variation
J Kantanen, J Vilki, K Elo, A Mäki-Tanila

321 SSCP analysis of pig mitochondrial DNA D-loop region polymorphism
K Takeda, A Onishi, N Ishida, K Kawakami, M Komatsu, S Inumaru

Short Communications

327 Polymorphic CAC/T repetitive sequences in the pig genome 1
W Coppiepers, A Van de Weghe, A Depicker, J Coppiepers, L Peelman, A Van Zeveren, Y Bouquet

331 Sheep gene mapping: assignment of *ALDOB*, *CYP19*, *WT* and *SOX2* by somatic cell hybrid analysis
E Payen, N Saidi-Mehtar, E Pailhoux, C Cotinot

335 Genotyping of *Bison bonasus* κ -casein gene following DNA sequence amplification
B Burzynska, J Topczewski

337 Mapping the soluble angiotensin binding protein (*ABP1*) locus to porcine chromosome 16
W Zhang, C S Haley, C Moran

341 Assignment of the growth hormone receptor gene to bovine chromosome 20 using linkage analysis and somatic cell mapping
D E Moody, D Pomp, W Barendse, J E Womack

345 Expression of multiple *DQB* genes in *Bos indicus* cattle
K L Marello, A Gallagher, D J McKeever, R L Spooner, G C Russell

351 A monoclonal antibody to swine erythrocytes recognizes the B blood group on the major glycoprotein
A González, M Friend, A Moreno, C O Pintado, P Vögeli, D Llanes

355 A set of polymorphic DNA microsatellites useful in swamp and river buffalo (*Bubalus bubalis*)
S S Moore, D Evans, K Byrne, J S F Barker, S G Tan, D Vankar, D J S Hetzel

361 Alignment of the PiGMap and USDA linkage maps of porcine chromosomes 2 and 5
W Zhang, C Haley, C Moran

Molecular Genetic Markers

365 Five polymorphic bovine microsatellite loci: *IDVGA-62A*, *IDVGA-71*, *IDVGA-82*, *IDVGA-88*, *IDVGA-90*
Y Zhang, L Redaelli, B Castiglioni, A Mezzelani, L Ferretti

366 Dinucleotide repeat polymorphism at the porcine *TNFA* locus
C Loof, M Nagel, P Chardon, M Nunes, M Vaiman, E Kalm

367 An *EcoRI* polymorphism at the amylase 1 (*AMY1*) locus in cattle
C Elduque, P Laurent, C Rodellar, H Levéziel, P Zaragoza

368 A polymorphic dinucleotide repeat microsatellite in Atlantic salmon, *Salmo salar* (*SSOSL436*)
A Slettan, I Olsaker, Ø Lie

369 A PCR-based diagnostic test for the endogenous retroviral element *ev4* of chickens
B F Benkel

Polymorphic sheep microsatellites at the *McM2*, *McM131*, *McM135*, *McM136*, *McM140*, *McM200*, *McM214*, *McM373*, *McM505*, *McM507* and *McM512* loci
D J Hulme, A J Smith, J P Silk, J M Redwin, K J Beh

371 Ovine dinucleotide repeat polymorphism at the *McM15*, *McM152*, *McM159*, *McM164* and *McM210* loci
K P Davies, J F Maddox, P Matthews, D J Hulme, K J Beh

372 Ovine dinucleotide repeat polymorphism at the *CSRD226* and *CSRD232* loci
K P Davies, J F Maddox, B Harrison, R Drinkwater

UCD001: a bovine cosmid containing a polymorphic dinucleotide repeat maps to chromosome 4
N Flavin, S Ennis, J Condon, M Rogers

373 A *Bgl*II RFLP at the porcine calpastatin (*CAST*) locus
P Zambonelli, R Davoli, L Fontanesi, E Costosi, V Russo

374 A *Pst*I RFLP at the porcine β -myosin heavy chain
(*MYHCB*) locus
R Davoli, L Fontanesi, P Zambonelli, D Bigi, E Farnetti

375 Society News

376 Obituary

Volume 26 Number 6 December 1995

377 First International Workshop on Porcine Chromosome 6
A A Paszek, L B Schook, C F Louis, J R Mickelson, G H Flickinger, J Murtough, J R Mendiola, M A Janzen, C W Beattie, G A Rohrer, L J Alexander, L Andersson, H Ellegrén, M Johansson, P Mariani, L Marklund, B Høyheim, W Davies, M Fredholm, A L Archibald, C S Haley

403 Survey on swine SINEs (PRE-1) as candidates for SSCP markers in genetic linkage analysis
T Harumi, M Kimura, H Yasue

407 Mutations in the equine plasma transferrin and esterase systems
K Bell, H Arthur, M Breen

413 Identification and characterization of new BoLA-DRB3 alleles by heteroduplex analysis and direct sequencing
K Sitte, I J East, M F Lavin, E C Jazwinska

419 Casein haplotypes and their association with milk production traits in the Finnish Ayrshire cattle
R Velmala, J Vilki, K Elo, A Mäki-Tanila

427 Genetic variation in domestic reindeer and wild caribou in Alaska
M A Cronin, L Renecker, B J Pierson, J C Patton

Short Communications

435 Genetic control of PI and GC variants in the American Mink
G P Borodin, A V Pereleygin, T I Axenovich, O V Trape佐, O L Serov

439 Prediction of informativeness for microsatellite markers among progeny of sires used for detection of economic trait loci in dairy cattle
M Ron, H Lewin, Y Da, M Band, A Yani, Y Blank, E Feldmesser, J I Weller

Molecular Genetic Markers

443 Ten novel chicken dinucleotide repeat polymorphisms
M Gibbs, D Dawson, C McCamley, T Burke

444 A bovine Y-specific marker amplified by RAPD
E Antoniou, C J Skidmore

445 PCR/RFLP markers in the canine gamma-d-crystallin gene
H Shibuya, B K Collins, S J Stoy, D Nonneman, G S Johnson

446 A *Tagl* polymorphism at the porcine arachidonate 12-lipoxygenase (*ALOX12*) locus
M B Coscelli, R Davoli, V Russo

447 A polymorphic bovine dinucleotide repeat D12S25 (IOBT323) at chromosome 12q24
C B Jergensen, I Olsaker, P D Thomsen

448 Five bovine polymorphic dinucleotide microsatellite loci (*DIK008, DIK010, DIK015, DIK016 and DIK020*)
M Inoue, T Hirano, S Nakane, T Watanabe, H Takeda, H Yamakuchi, M Morita, W Barendse, Y Sugimoto

449 Five bovine polymorphic dinucleotide microsatellite loci (*DIK021, DIK023, DIK024, DIK026 and DIK028*)
T Watanabe, T Hirano, S Nakane, M Inoue, H Takeda, K Mizoshita, L Ximin, W Barendse, Y Sugimoto

449 Caprine microsatellite dinucleotide repeat polymorphisms at the *SR-CRSP-11, SR-CRSP12, SR-CRSP-13, SR-CRSP-14, and SR-CRSP-15* loci
J Kogi, C-C Yeh, R Bhebhe, B M Burns, F Ruvuna, S K Davis, J F Taylor

501 Author and subject indexes to volume 26

